

Title (en)

NON-ELLIPTICAL CONTACT PROFILE FOR ROLLER BEARING

Title (de)

NICHTELLIPTISCHES KONTAKTPROFIL FÜR EIN WALZENLAGER

Title (fr)

PROFIL DE CONTACT NON ELLIPTIQUE POUR ROULEMENT À ROULEAUX

Publication

**EP 4151873 A1 20230322 (EN)**

Application

**EP 22175637 A 20180420**

Previously filed application

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Priority

- US 201762490392 P 20170426
- US 201762519464 P 20170614
- EP 18723204 A 20180420
- US 2018028521 W 20180420

Abstract (en)

A roller bearing comprises an inner race ring, an outer race ring and a roller arranged between and in contact with the inner and outer rings. The bearing has a flange (31) on the inner race ring at one axial end, and a flange (21) on the outer race ring at an opposite axial end. At least one of the flanges, or an end of the roller (46), has a profile including a principal segment (53) with a reference point C defining a contact location between the roller and the flange, the principal segment having a continuously changing radius of curvature, on both sides of reference point C, that decreases as a distance from the reference point C increases.

IPC 8 full level

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CPC (source: CN EP US)

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Citation (applicant)

- US 6530693 B1 20030311 - IJUIN SEIJI [JP], et al
- US 6997616 B2 20060214 - SAKODA HIRONARI [JP], et al

Citation (search report)

- [XY] EP 2309143 A1 20110413 - NTN TOYO BEARING CO LTD [JP]
- [Y] EP 2884126 A1 20150617 - SKF AB [SE]
- [A] US 2003012477 A1 20030116 - MURAI TAKASHI [JP], et al
- [A] WO 2017033977 A1 20170302 - NTN TOYO BEARING CO LTD [JP] & US 2018245627 A1 20180830 - KAWAI TAKASHI [JP]
- [A] US 2009003747 A1 20090101 - DE MUL JAN [DE]
- [AD] US 6530693 B1 20030311 - IJUIN SEIJI [JP], et al

Designated contracting state (EPC)

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**WO 2018200324 A1 20181101**; CN 110869628 A 20200306; CN 110869628 B 20211008; CN 113864327 A 20211231; DK 3615821 T3 20221003; EP 3615821 A1 20200304; EP 3615821 B1 20220727; EP 4151872 A1 20230322; EP 4151873 A1 20230322; ES 2925254 T3 20221014; US 11053978 B2 20210706; US 11624402 B2 20230411; US 2020386272 A1 20201210; US 2021285493 A1 20210916

DOCDB simple family (application)

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